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ABSTRACT

Though most definitions of literacy focus solely on the uses of reading and writing, a sociocognitive perspective that incorporates social practices, conceptions of reading and writing, and literacy as a way of thinking is more productive. Within this view, literacy is culturally based, involves the higher intellectual skills, and is learned by children as they interact with their families and communities. Schools can capitalize on the social nature of this view of literacy learning by creating instructional experiences in which students gain skills as they engage in broader and more purposeful literacy activities. Studies indicate that United States students are learning to read and write, but are not becoming literate thinkers. Rather than learning how to do something new and thoughtful, such instruction emphasizes whether students have done something right. A sociocognitive view of literacy combines issues of society and schooling, asserting that (1) all learning is socially based, (2) literacy learning is an interactive process, and (3) cognitive behaviors are influenced by context and affect the meanings that learners produce. When considering the instructional implications of a particular interaction, it is important to determine who controls the interaction, what pedagogical functions are served by it, and what form each participant's contribution takes. A six-page list of references concludes the document. (JD)

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A Sociocognitive Perspective on Literacy

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Issues of literacy are critical to society -- to its innermost workings at economic, political, and social levels. Literacy involves how people think, and learn, and change -- and how society changes as a function of the changes in its people. I will argue here that many scholars, as well as the general public, have regarded literacy somewhat narrowly -- as the ability to read and write and get on at some minimal "functional" level in day-to-day life and work -- and that because of this restricted view, our solutions to very pragmatic issues of literacy learning and instruction have suffered, as have national interpretations of literacy-in-society for policy and planning.

While the marks of a literate person have changed over the years (Resnick and Resnick, 1977), such changes have not led to broader definitions of literacy for society or schooling. In the United States, school-based notions of literacy have progressed from literacy as the ability to read a simple, familiar passage aloud, to the ability to answer literal questions about the passage, to the understanding of word and sentence meaning in an unfamiliar text -- a progression from rote to functional

performance (Clifford, 1985; Kaestle, 1985; Resnick and Resnick, 1977). Before the mid 19th century, writing was taught as copying (Heath, 1981), and until the beginning of the 20th century reading instruction focused on syllables, sounding, and memorization (Resnick and Resnick, 1977). During World War I, the Army Alpha and Beta tests emphasized that a broader set of literacy skills were needed even for routine army tasks, and literacy training was offered to those who failed. And by the 1970s functional literacy, the ability to participate in the reading and writing demands of everyday living in modern society, was considered essential (cf., Adult Functional Competence Report, 1975). Most recently, the National Institute of Educational Progress undertook a literacy survey of young adults, aged 21 to 24 (in preparation). For this survey the criteria for literacy changed once again: The 1985 Profiles of Literacy: Assessment of Young Adults (NAEP, 1986) describes literacy as the use of written information to function in society to achieve one's goals and to develop one's knowledge and potential. Literacy is seen "not as a set of independent skills associated with reading and writing, but the application of particular skills for specific purposes in specific contexts." This view marks an end to the simple dichotomy between literate and illiterate citizens in favor of a literacy profile, based on the variety of contexts and uses of literacy.

However, while definitions have changed in response to changing societal uses of literacy, the focus has remained solely on the uses of reading and writing. It would be more productive

to view literacy in a broader sense, from what I call a sociocognitive perspective that incorporates social practices, conceptions of reading and writing, and literacy as a way of thinking into the definition of literacy. Viewing literacy in this way would lead to a radical change in the ways in which literacy learning, social and cultural issues involving literacy, intellectual effects of literacy, and issues of schooling would be addressed. If we view literacy from this broader perspective, we can show that some very basic aspects of literacy have been changing but have gone unnoticed. Further, these changing aspects of literacy make all the difference in what people learn, how people learn, and how they think -- it is these aspects that make issues of language, literacy, and culture inseparable.

In this chapter, I will develop this sociocognitive view of literacy and show how from this view literacy a) is culturally based, b) involves the higher intellectual skills appropriate to the culture, and c) is learned by children as they interact with their families and communities. I will also describe the relevance of the sociocognitive view of literacy learning for schooling, suggesting ways in which schools can capitalize on the social nature of literacy learning and create instructional experiences where students gain literacy skills as they engage in broader and more purposeful literacy activities.

Literacy as Literate Thinking: A Sociocognitive View

There are two ways to regard literacy. We can think of literacy as the ability to read and write (Kaestle, 1985; Graff,

1979; Resnick and Resnick, 1977). This is the common dictionary definition, and the one that is generally reflected in statistics on literacy rates and in assessments of the success of schooling.

We can also view literacy another way -- as the ability to think and reason like a literate person (Kaestle, 1985; Langer, 1986; Traugott, this volume). Here, the focus is not just on the reading and writing, but also on the thinking that accompanies it. In this case, literacy can be thought of as a tool. The thinking skills that a person uses when reading and writing are generalizable to, and occur in, many other situations -- situations where people talk about language (written and spoken), are conscious of the distinctions between the discourse (speaker's or author's) meaning and their own interpretations -- where they use their knowledge to read, write, think, and communicate in new ways. Literacy enables a thinking about language and about oral and written discourse, using language to extend meanings and knowledge about ideas and experiences. It leads to the spiralling change that comes about when people use their literacy skills to think, rethink, and reformulate their knowledge and their worlds (Bakhtin, 1978). This view of literacy is not text-based. It values both the reader and the discourse -- and depends upon and fosters the kinds of metalinguistic and metacognitive abilities that are found in the most successful learners.

For example, when a group of people read one of the classics and then discuss the theme, motives, action, and characters at a Great Books meeting, I would say they were using literate thinking skills. If the same people happen to read a best

selling gothic romance and discuss the plot and the motives of the characters, I would also say they were using literate thinking skills. Further, when those people see a movie and then discuss the plot and the motives and alternative actions and resolutions, I would again say they were using literate thinking skills even though they had neither read nor written. And if the people engaged in that very same conversation about a movie, but did not know how to read or write, I would still say they had engaged in literate thinking.

The distinction I wish to make is between literacy as the act of reading and writing and literacy as a <u>way</u> of thinking and speaking. Reading and writing as low level activities can involve little literate thought, and using literate thinking skills when no reading or writing has occurred may involve a good deal of literate thinking. It is the way of thinking, not just the act of reading or writing, that is at the core of the development of literacy.

Of course, I am suggesting that certain uses of language and certain kinds of thinking may be related to certain kinds of literacy practices -- not to literacy in the narrower sense of being able to encode and decode written language. And it is through engaging in particular uses of literacy that a wide range of intellectual behaviors are learned and refined.

While literacy involves special uses of language, these uses and the cognitive behaviors they invoke may take place orally as well as in print, and literate thinking about ideas can occur even when no reading or writing has taken place. Literate

thinkers objectify the subject matter, making it opaque and malleable, thereby permitting self-conscious distinctions to be made between language structure, discourse meanings, and interpretations. For example, Olson (1984) describes the language lesson inherent when a parent says to a child looking at a frog in a pond, "See! Jumping." The parent's emphasis urges the child to focus on the instance of jumping as a present tense verb representing the observed action, and on the ing form used to convey it. Because this type of objectification and logical treatment of language and ideas can occur in a variety of contexts, there is an overlap in use (and in the types of thinking) between oral and written modes (see Tannen, 1984; Chafe, 1980; Stubbs 1980), rather than a great divide between oral and written language (Goody, 1977; Ong, 1982).

Narrow definitions of literacy as the act of reading and writing are also becoming blurred by the rapid development of mass media and computer communications in our society. Traditional genres such as newspapers and magazines are breaking down, causing us to "alter our ideas about what constitutes a 'book,' what separates an 'academic work' from a popular one, indeed what body of data should properly be considered a book or an 'author'" (Smith, 1982). Television has replaced many of the news, editorial, and literary functions traditional forms had served in the past, while the print forms have enlarged such "neighborly" feature sections as health hints, personal living, and advice columns. Shared contexts of communication now reach well beyond the here and now to people in different places and different times. Television reports use such "literate"

conventions as logical argument, and careful analysis of issues, but also rely on such "oral" language features as formulaic devices, repetition, emotional appeal, and reliance on the shared situation. (See Ong, 1982, for a contrast of oral and written features.)

Lakoff (1984) suggests that as a result of technological progress, modern society is changing to one where features of the oral and written traditions have become merged, with each incorporating linguistic features of the other (see also Tannen, this volume). She goes on to suggest that in our age of mass communication the oral medium is often considered a more valid conveyor of ideas than is print (cf. the "truth" of the evening news report), and that written documents are being rewritten to more closely approximate the oral mode. The point is that in modern society, a focus on simple reading and writing skills as defining "literate" thinkers, and on uses of oral and written language as involving different intellectual dimensions, are unhelpful distinctions. Uses of oral and written language mix and blur and vary as the language situation changes, and these complexities need to be considered if we are to understand the literacy demands that occur within a technological culture.

Literacy is an activity, a way of thinking, not a set of skills. And it a is purposeful activity -- people read, write, talk, and think about real ideas and information in order to ponder and extend what they know, to communicate with others, to present their points of view, and to understand and be understood. In doing this, sometimes they read and write,

sometimes they talk about what they read or wrote, and sometimes they talk about ideas using the ways of thinking and reasoning they might also have used when they engaged in directly text-based activities. According to this expanded notion of literacy, a society does not grow less literate as its modes of communication change to more oral media; instead the functions of literacy modify in response to these shifts, as do the particular ways of thinking.

Literacy in Society

Nations profess concern when many people cannot read and write, and they develop literacy programs as a remedy. At times programs are developed by the government (e.g., among the Mossi people in the Upper Volta) because literacy is "good" for the people; at times they are offered by the church (e.g., the Kaluli in Papua New Guinea) to enable people to read the bible (see Schieffelin and Cochran-Smith, 1984). Sometimes these efforts fail, as they did with the Kaluli, because the ways and uses of literacy introduced by the program have no basis in the people's culture. Cressy (1983) would consider such a failure the result of a "push-pull" imbalance, where the conditions in society make it unnecessary and even unproductive for the target population to become literate. Push factors are the external ideological or political forces that attempt to influence people, while the pull factors are utilitarian, internal concerns. Some balance of internal and external factors seems to be needed to make a difference in the development of literacy within a culture.

When literacy is successfully introduced into a society, it

also changes the culture of which it becomes a part. With the Vai in Liberia (Scribner and Cole, 1980), for example, letter writing in the Vai language became a frequent way of communicating with distant relatives, and the decontextualized nature of this writing activity was transferred to other tasks where specific and non-situational language was needed. As with the Vai, the onset of literacy creates initial changes within a culture, and the members of the society who use literacy are then free to modify the uses to which literacy is put and to further change their culture. In this way, literacy can change across time within a particular culture, and it can change differentially at the same time across different cultures. Both of these processes need to be addressed when considering issues of literacy in society.

Social Origins of Literacy. The practices of literacy, what they are and what they mean for a given society, depend on the context. They are embedded in a cultural way of thinking and learning and although they may appear stable in the short run, they are ever changing, reflecting the growing and changing ways of thinking and doing enacted in the population at large. Thus, how literacy skills are learned and taught and used by individuals not only depends upon, but also deeply influences, literate activities of the society at large.

The skills and concepts that accompany literacy acquisition do not stem in some automatic way from the inherent qualities of print, but are aspects of the specific uses of and approaches to

literacy that are implicit within the social, political, and intellectual forces that constitute that society.

Vygotsky (1962; 1978) stresses the social origins of language and thinking and begins to conceptualize the mechanisms by which culture becomes a part of how each person thinks, learns, and relates to others and the environment. At the root of his theory is the notion that humans "master" tools and signs to serve their own ends, and in doing so, they take part in modifying their own environment. Tools and signs, he argues, are created by society and change with society. As people learn the rules for manipulating these culturally produced sign systems there is a transformation in the way they behave -- they learn to interpret the signs and since the signs are part of the culture, they learn to become part of the culture as part of their learning. And, because they learn to understand and master the environment through mastering the signs, their ability to think and reason also changes and develops.

In short, the literacy skills societies (or institutions) value are those that people learn (Au, 1980; Heath, 1983; Scribner & Cole, 1980; Sternberg, this volume; Vygotsky, 1962; 1978). Literacy behaviors gain their functional value from the contextual settings that cultures and subcultures provide for their uses; in each case these may reflect different modes of thinking and reasoning (Applebee, 1984; Langer and Applebee, 1986; Olson, in press; Scribner & Cole, 1980). The outcomes of an individual's literacy learning are shaped by the social contexts in which they are embedded and can only be fully understood in relation to these social contexts.

Intellectual Effects of Literacy. Some scholars (Goody, 1981; Olson, 1977; Ong, 1982) make claims for the cognitive consequences of literacy, suggesting that written text evokes a very different way of thinking from oral modes. While oral thinking has been described as emotional, contextualized, and ambiguous, literate thinking has been described as abstract, decontextualized, and logical. Tannen (1982), Chafe (1980), and Scollon and Scollon (1981) argue instead that the literate tradition does not replace the oral. Rather, when literacy is introduced, the two sets of skills interrelate with one another. People use both ways of thinking for differing purposes in specific settings. Others (Greenfield, 1966; Bruner et al., 1966) suggest that intellectual differences in literacy are based on the effects of schooling. However, Scribner and Cole's (1980) work with the Vai people of Liberia suggests that the intellectual differences are not dependent on schooling, but are rather a function of the ways in which particular literacy activities are used within a culture; it is the particular uses of literacy rather than schooling per se that makes a difference in cognition.

Higher mental functions are social in two senses: 1) their development is part of the development of the social system, and their existence depends upon the communication from one generation to the next, and 2) they are seen as social relationships that have been taken over by the individual and internalized. Vygotsky (1962; 1978; 1979) suggests that higher

psychological processes are direct reflections of social processes in which the child participated at an earlier stage -- that processes evolve from interpsychological to intrapsychological. Of critical concern are the social processes used by the adult and how these are taken over by learners -- allowing them to act as independent thinkers and doers. How people think and reason depends upon the uses for literacy in the culture and the ways in which those activities are transmitted to younger generations.

As learners assume ownership for their literacy activities (i.e., as the child attempts to master the environment by using a written sign to stand for something to be understood or remembered), they are in a sense learning to master themselves -- they gain control of their own abilities as literate thinkers and doers, using language to serve their own ends. The act of mediation, of using signs and symbols to stand for something else, actively and fundamentally changes cognitive behaviors. As such, literacy activities (as mediating behaviors) are acts of higher mental thought, and these higher mental acts have their roots in social (cultural) interaction.

Children learn such higher level skills as they engage in socially meaningful literacy activities. Interactive social experiences are at the heart of literacy learning; they involve children as active learners in cooperative social environments where an adult (or able other) serves as a model or offers some direct guidance that governs the children's initial engagement in the activity. After successive experiences, children develop their own self-evaluative and self-regulatory abilities. They

first learn the activity in a social setting in which cultural interpretations are embedded and communicated by other members of the society, and with experience they internalize the skills needed to complete the activity and also the socially or culturally accepted way to evaluate the meaning and relative success of that activity. In this socio-functional manner, they learn metacognitive and metalinguistic skills (Duran, this volume). Both Vygotsky (1962, 1978) and Bruner et al. (1966) argue that literacy learning grows out of such communicative relationships, and that these joint learning activities support higher levels of cognitive development. (See Langer and Applebee, 1986, for an extended discussion of adult/child interactions and literacy learning.)

Culture and Literacy Learning. Just as culture affects the intellectual effects of literacy, so too does culture affect the process of learning to be literate. Detailed studies of literacy from historians and anthropologists have been culture specific (Goody, 1977; Cressey, 1982; Furet and Ozouf, 1982; Clanchy, 1979), attempting to explain relationships between particular cultures and ways of learning. This has provided an understanding of literacy uses and developments within and across certain cultures at particular points in time. However, educators and development planners often fail to consider literacy in similar ways, as a culturally specific phenemenon. They look at reading and writing as an expected part of the general changes that come with modernization, industrialization,

and urbanization. Issues of biculturalism and co-culturalism (see Griffin and Cole, this volume) are often overlooked in attempts to deal with literacy learning, although such issues are particularly important both in the United States, where students from many cultures come together to learn, and in many developing nations where a variety of peoples speaking different languages are trying to establish a sense of national purpose. Similarly, any nation that wishes to participate in the world economy and world culture needs to extend its views of literacy to include an understanding of its cognitive and cultural underpinnings. To do this it is necessary to look at societal as well as individual universals and differences -- at the ways people acquire literacy, and at the social environments and institutions in which literacy learning takes place and is used.

Ong (1982) has stated that cognitive growth "occurs as much from the outside as the inside. Much of it consists of the person's becoming linked with culturally transmitted amplifiers" (p. 109). Words are embedded within cultural meanings. From a Vygotskian perspective, culture plays a critical role in how a learner gains access to the signs and symbols in the environment, and learns to imbue them with meaning. Culture is the product of social life and human social activity. As people learn the signs of a culture, they learn to use these signs to mediate their thinking, and thereby gain the tools to change the culture. The signs of a culture, the symbols of that culture, and the meanings (how to read that culture) are all accomplished first in interaction with others, and later internalized for personal use.

While Vygotsky begins with the social origins (at the

interpersonal level) of these processes, many present day researchers look primarily at the internal processes -- and therefore fail to see the cultural and social roots of thinking and learning. In doing so, they fail to understand the roots of literacy as social and functional and cultural behavior. Literacy and cultural development are inextricably bound, and learning a new literacy (i.e., becoming bi-literate) therefore requires one to become, in a sense, bi-cultural. In this sense, it is impossible to consider some kinds of literacy as good and others as less desireable -- each reflects the culture (or institution) in which it is learned. The form of literacy that is taught and learned is based upon the ways in which literacy is perceived by that social group, and in this respect all literacies are appropriate to the context in which they are learned. However, it is also necessary to look beyond the literate behaviors of the local community or school to the society at large. While some literacies have local applicability (e.g. decoding Arabic to read the Koran, or reading only for the literal text meaning in classes where that is valued), people also need the opportunity to learn the kinds of literate thinking engaged in by the larger society. And as a society becomes more technological and makes greater interpretive demands on its people, schooling needs to reflect these changes in the kinds of literacy activities that are most valued.

Literacy in Schools: A Sociocognitive View

Let me turn now to consider how well schools in the

United States are currently teaching children to become literate, in ways that would make sense from a sociocognitive perspective -- involving the literate thinking behaviors called for at this point in time. The National Assessment of Educational Progress (NAEP) has been examining the achievement of American school children in a variety of school subjects since 1969. The areas they assess that are of most interest here are reading and writing -- both of which have been assessed relatively regularly since the early years of the assessment. The reports on the 1984 assessment provide an overview of achievement in reading since 1971 (Applebee, Langer, and Mullis, 1985), and achievement in writing since 1974 (Applebee, Langer, and Mullis, 1986) -- over a decade of achievement in both subjects in the elementary, middle school, and secondary grades. NAEP reports that while students were reading somewhat better in 1984 than they were in 1971, and after a decline in 1979 were again writing as well in 1984 as they were in 1974, literacy performance was in general poor. Improvements occurring in reading and writing were due to increased proficiency in the most basic skills. Students failed at activities that required more thoughtful uses of language. Overall, the results indicate than American students are learning to read and write, but they are not learning to become literate thinkers.

Whether by accident or by design, school curricula and the tests that go with them seem to have rewarded relatively simple performance and have undervalued the attainment of more thoughtful literacy behaviors. Further evidence of this is seen

in a variety of recent studies:

In a 1978 report to the Ford Foundation, Graves found that elementary school students were seldom asked to write, and what writing they did consisted of workbook exercises and drills emphasizing such subskills as punctuation, vocabulary, and grammar instead of the communication of a message. He also reported there was little emphasis on writing instruction. What passed for writing instruction was talk about finished writing: papers were graded, errors were marked, and suggestions were offered for further improvement -- but students rarely had to carry those suggestions to completion. Even teacher-student conferences focused on <u>what</u> the writing should look like but not on <u>how</u> to do it.

At the secondary school level, Applebee (1981) found that although 44 percent of class time was devoted to writing, only 3 percent of class time was devoted to activities in which the students were asked to write a paragraph or more. Writing was used for exercises and for testing what had been learned -- for filling in blanks -- not as an opportunity for students to develop their own ideas.

More recently, Applebee and I (Langer and Applebee, 1986) found that even teachers who were deeply committed to using writing for broader purposes, who have sought to learn new instructional approaches, and who were committed to using writing as a way to help their students think and learn, had great difficulty in carrying out these good intentions. We found that their good intentions were undercut by their deeply rooted views of their role as transmitter of knowledge -- and with it their

overarching concern with diagnosing what their students needed to learn, teaching the missing information, and testing to evaluate the success of that teaching. This pattern of test/teach/retest left even the best intentioned teachers with little room to encourage students to develop broader literacy skills.

Tests reinforce these emphases. In my own studies of testing, I have shown that not only do standardized tests (the norm-based multiple choice reading achievement tests) focus on small and unrelated items of information, but it is also difficult to know if a student has gotten the right answer for the wrong reason or the wrong answer for the right reason (Langer, 1985, in press). Literacy as I define it is not helpful to get through this type of test, although it is the sort of test most frequently used to gather data about students' reading and language skills.

These reports are dismaying. They suggest that students are not being encouraged to think broadly and deeply about ideas and content. Their school experiences are not helping them to learn the literate behaviors important to the present day culture. These results are a signal either that the schools have not been teaching what they set out to teach, or that they have not set out to teach the kinds of literacy behaviors that I value. I suspect it is the latter, and that schools are basing their instructional programs on a narrow definition of literacy as reading and writing rather than recognizing that literacy is also a way of thinking and doing.

This is also the kind of education that is curriculum

driven, where there is a set of skills or information to be learned, and the teacher tests to see what the students know or don't know, teaches what isn't known, then tests to see if it has been learned. Perhaps more by accident than by design, when instruction is driven by this model, the focus shifts almost inevitably toward discrete skills and items of information that are easy to test, and away from deeper understandings that are more complicated and time-consuming to consider.

This kind of approach to instruction 1) permeates much of school learning today, and 2) inhibits students from becoming the more thoughtful and more literate language users and learners we would like them to become. In such instruction, the teacher rather than the student does the thinking-- about the subject matter as a whole as well as about the structure of the particular activity. Rather than learning <u>how to do something new and thoughtful</u>, such instruction emphasizes <u>whether the student has done something right</u>.

There is, however, another way to think about teaching and learning, what I have called the sociocognitive view. Whereas the old view of instruction focused on content to be transmitted, the sociocognitive view is more concerned with how people learn <u>how</u> to do new things. And people learn to do new things most effectively, and perhaps exclusively, in contexts where the learner is engaged with others in carrying out socially meaningful tasks.

Literacy Instruction

The discussion so far provides the base for a sociocognitive

view of literacy instruction. This view combines issues of society and schooling, and asserts that: 1) all learning is socially based, 2) literacy learning is an interactive process; and 3) cognitive behaviors are influenced by context, and affect the meanings the learners produce.

1. <u>All learning is socially based.</u> Literacy learning results from understandings that grow in social settings where reading and writing and talk about language have particular uses for the people involved. It takes place when learners see models of literate behavior as other people engage in literacy activities, and when they talk and ask questions about what is happening, why, and how. For example, Luria (1929/1977-78) describes how young children learn to write by first emulating the writing behaviors of the adults around them -- they copy the way the adult writing looks before they fully understand what it means. With time, they begin to understand what writing means to the adults, that the writings represent meanings that the writer wishes to convey in print. They learn to understand what particular literacy activities mean and the rules for completing them through exposure to the social environments in which the activities occur.

The particular uses of literacy to which children are exposed can be broader or narrower. In either case, students come to understand and use literacy in ways that reflect the environments in which they learn-- both at home and in school. If the culture of the classroom treats reading and writing as a set of encoding and decoding skills detached from

more functional activities, more restricted uses of literacy will be learned, with underlying rules and meanings interpreted and practiced in accordance with the uses to which literacy is put by the teacher and classmates. Alternatively, when reading and writing are treated as purposeful activities that grow out of shared questions and issues within the classroom culture, broader and more varied uses of literacy will be learned. The choice of methods of instruction thus becomes more than a question of how to teach children to read and write; it is also a question of what children will learn.

2. Literacy learning is an interactive process. In becoming literate, people assume control over and internalize new skills and understandings -- by understanding how the skills and ideas work toward some end in the social context, and by learning to use them toward that end. They develop implicit rules to govern their behavior as they come to understand their new skills in relation to the activity they are engaged in. The understanding they develop is shaped in two ways by their interactions with others: the interactions provide instruction (direct and indirect) in how to complete particular tasks, and they provide reactions that help the student judge how well the task has been accomplished.

In the most productive learning environments, the instructional interactions will be supportive and collaborative: simplifying the situation, clarifying the structure, helping the students accomplish tasks that would otherwise be too difficult

for them to do, and providing the framework and rules of the procedure that they will gradually learn, so that instructional support will no longer be necessary (Applebee and Langer, 1983; Langer, 1984; Langer and Applebee, 1984, 1986a,b). When people work together to solve a problem and complete an activity, they can pool their group knowledge, each offering what they know to help get the job done. Alternatively, one more knowledgeable person can act as a tutor, helping the others to do what they have set out to do.

However, schools sometimes limit the nature and extent of the interactions that take place during literacy learning. Reading and writing may be taught as exercises and tests of particular skills, and interaction with others about the nature and meaning of the activities may be considered disruptive rather than facilitative. When social interaction is restricted and collaboration is discouraged, children will learn the particular behaviors invoked by those more restricted uses of literacy to which they are exposed.

3. Cognitive behaviors are influenced by context and affect the meanings that learners produce. People learn to use literacy activities for particular purposes, and they learn particular strategies for completing those activities, based upon the contexts in which the activities take place. Hence the contexts in which literacy is used and learned lead to particular ways of thinking and doing.

Metalinguistic and metacognitive strategies are learned through the interactive events that are at the heart of literacy

learning. Like other aspects of literacy learning, these strategies can be broader or narrower, depending upon the context in which they are learned. When instruction is based upon functional uses of literacy within the classroom community, there will be a ready audience to respond to attempts at learning, and to help when needed. Because the purposes of literacy activities will be clear, the learner will be able to tell how well what he or she is doing is contributing to getting the task done. Thus self awareness in both language and cognition will occur first in the social setting, and can later become internalized as monitoring behaviors that can be carried out alone.

However, many school activities foster more limited interactions, leading to a different set of cognitive strategies and monitoring skills. Rather than encouraging self questioning and self appraisal, some classrooms emphasize recitation of previously memorized material or the ability to discover the interpretation preferred by the teacher. In these cases, the interaction within the classroom will foster rote memorization and test taking skills, rather than self-assessment, and may lead to a restricted set of cognitive strategies (see Langer, 1986a; 1986b). Students learn the cognitive strategies and metacognitive and metalinguistic behaviors required in their school environment.

These principles derive directly from the notion that literacy learning is a sociocognitive activity, and that higher level thinking is a result of learning social/functional relationships -- things that work do so because they make sense in social settings. In becoming literate, learners internalize

the structures of these socially meaningful activities, however extensive or limiting they might be.

Learning and Schooling. It is necessary to tease apart and then bring together again issues of learning and schooling. While it may be possible with expert schooling to teach more and more people to be more broadly literate, it is also possible that many people, particularly certain minority groups, won't learn (see Ogbu, this volume). Cressy (1983) suggests that "It may be analagous to teaching fortran to a literature scholar. It is alien and external until a situation arises in which it can be useful (p. 41)." This usefulness grows out of the realities the learners face -- at home, in their communities, at work, and in school. Literacy learning begins and continues when people understand its advantages and know it will benefit them. If the perceived advantages of literacy shift from job success and financial gain (which may be seen as closed to some minority groups) to personal and social uses, in light of rather than antagonistic to personal and cultural differences, associations with literacy as part of the majority ideology may begin to diminish.

Literacy cannot be detached from specific socio-cultural contexts, yet schools try to do this all the time. Students from a variety of cultures and subcultures are expected to understand and learn many new and complex ideas and to interpret them as the teacher does, even if they are only minimally fluent in English or are being exposed to middle class language and values for the first time. Interpretations and meanings that are contiguous

with literacy in the students' first language and first culture are ignored, as are cultural differences in ways of learning and assumptions about learning (Heath, 1983; McDermott, 1977). Approached in this way, literacy instruction fails for too many students.

Since the 1970s, research on literacy and schooling has followed a number of productive paths: It has looked at cultural, social, and linguistic differences between students and the materials of instruction (Steffenson et al. 1979; Scollon and Scollon, 1981; Au, 1980); at transitions from home and community to school (Cook Gumperz and Gumperz, 1981; Heath, 1983; Scollon and Scollon, 1981; Wells, 1982); at communicative interactions among students and between students and teachers in the instructional environment (Cazden, 1979; Green and Wallat, 1981; McDermott, 1977; Schultz and Florio, 1979; Erickson, 1975); at the language of instruction (Cazden, 1979; Heath, 1983; Au, 1980; Michaels and Collins, 1982); and at social aspects of schooling (Phillips, 1972; Schieffelin and Cochran-Smith, 1986). The issues have generally been taken separately, and the studies often focus on minority group students who are poor academic achievers in a traditional sense. While the language and social issues that facilitate or impede learning have been frequently studied, the patterns of learning that result have rarely been considered. See Heath (1983) for an exception.

Thus, both literacy researchers and practitioners tend to look at literacy as if reading and writing need to be learned in some pristine and decontextualized sense, detached from the

social purposes they serve. This, by its very nature, inhibits both researchers and practitioners from considering literacy as a way of thinking within society. And particularly at this point in time in American society, literate thinking is precisely the goal on which we should be focusing.

The Role of the Teacher and the Role of the Student

A sociocognitive view means two things for instruction: first that more attention is paid to the social purposes to which literacy skills are put-- we learn best when we are trying to accomplish something that is personally and socially meaningful. (This does not mean, however, that all class activities need to be group activities, nor that language and literacy learning are incidental.) Second, it means paying more attention to the structure of tasks that students are asked to undertake, so that direct instruction in needed skills will be provided as part of each task at points where it is needed. In this way students will have a better chance of understanding how new skills relate to the activities that are being completed. Rather than simply memorizing isolated rules, they will be able to make sense of how the rules work in completing literacy tasks.

Let me conclude by providing a brief discussion of some of the dimensions that are important to consider when reflecting on instructional interactions from a sociocognitive perspective. Every interaction takes place simultaneously on a number of different levels, ranging from the particular purposes the participants hope the interaction will achieve to the cultural and linguistic functions reflected in the dialogue that results.

In considering the instructional implications of particular interactions, three dimensions are particularly important: who controls the course of the interaction, the pedagogical functions served by the interaction, and the form of the contribution that each participant makes. Alternatives within each of these dimensions are summarized in Table 1 and discussed further below.

insert table 1

1. Control of the Interaction. One important dimension of instructional interaction concerns who controls most of the thinking and doing. Are the students passive recipients of the learning or are they knowledge seekers? (The notion of control should not be confused with the issue of ownership [Applebee and Langer, 1983; Langer and Applebee, 1984, 1986] for the goals of the activity, but focuses instead on who orchestrates the learning of a particular subgoal.)

At times a student or group of students and teacher lack a shared conception of what they are doing -- either the student does not fully understand the teacher's purpose in promoting the activity, or the communicative interaction has broken down (sometimes due to cultural or social differences). In either case, this indicates that for those individuals, the activity is inappropriate and will not support the intended learning.

When students and teacher have a shared conception of what they are doing, students may be involved in varying degrees in regulating the ways in which the interaction proceeds-- in deciding what gets done, how, and when. The interaction may be

completely regulated by the teacher; teacher and students may share in regulating the interaction; or the interaction may be controlled by the students. Generally, control of the interaction will vary based on the degree of difficulty (and newness) of the skills and knowledge needed to complete the task that is underway. While some instructional interactions begin with teacher regulation, move to shared regulation, and finally to student regulation, the pattern is necessarily task specific and needs to be examined closely. An interaction that appears to be predominantly teacher regulated may signal a task that is too difficult for a student or may be unnecessarily dominated by the teacher, and one that is completely regulated by the student may indicate a task that is too easy for new learning to occur.

2. Pedagogical Function. Instructional interactions can serve a variety of different pedagogical functions, depending upon the goals of the teacher and the needs of the students. The interaction may be concerned primarily with motivating the participants to engage in the activity in the first place; with providing reassurance and encouraging risk-taking and decision making; with offering help through such strategies as modeling, direct instruction, questioning, or task segmentation; or with extending the task in order to foster new and more complex learning. Each of these represents an important pedagogical function that can be realized in differing ways by the teacher and students, and each is likely to occur some time during any one activity. Less effective instructional interactions may fill only one or two of these pedagogical functions, or may provide

motivation, reassurance and help, but fail to extend and generalize newly learned skills and knowledge to other more challenging situations.

3. Participants' Contributions. The third dimension of the instructional interaction is concerned with the nature of the contribution of each of the participants. What, primarily, do they do to carry the interaction forward? What shape do their contributions take?

Some instructional interactions are organized primarily around demonstration, with students observing while the teacher (or other students) demonstrate how to complete the task. Other interactions are organized around direct instruction, with explicit presentation of information or procedures for the learners to assimilate. A third type of interaction involves the posing of more open-ended problems and a search for appropriate solutions as the students think the issues through. Finally, a fourth type of instructional interaction involves mutual reflection and task definition around shared problems or interests. This may involve evaluation and reassessment of earlier solutions, or a broadening of the topic or problem being addressed. Again, the likelihood of any one of these types of interaction is task dependent, but open-ended questioning is more likely to occur as students' knowledge increases, as is the broadening of the topic or problem being addressed. All four types of instructional interaction have their place, as long as students' own interpretations and understandings are legitimately considered and discussed among the participants.

From a sociocognitive perspective, effective literacy instruction is marked by new roles for teacher and students. Unlike traditional roles as knowledge giver and receiver, the interaction is based in social cooperation. The literacy activities themselves will also be different. They will be content-based, involving purposeful and meaningful goals as opposed to snippets of ideas presented in exercise form. Because the activity is understood by the student, and often even regulated by the student, evaluation of the success of the learning is assumed by the student. Therefore, planning, monitoring, and task evaluation, learning behaviors present in the most successful students, are encouraged. In addition, the content of the activity, the thinking and learning about new ideas and new uses of thought and language, is supported throughout. The students are encouraged in every way to become flexible and independent thinkers.

All this is a far cry from the pretest, assign, and retest view of instruction most of us have gotten so used to. However, it is difficult for teachers to adopt a sociocognitive view. The more traditional paradigm with its pre and post tests too easily identifies points of "success," indicating that the teacher has "taught" and that the students have "learned." Also, it elicits the kinds of responses the students generally need to give when they take standardized tests. But this very same oversimplicity prevents the activities from leading toward higher level learning -- because they do not involve the students as active and thoughtful learners in meaningful tasks.

Literacy instruction needs to help students think more deeply and more broadly about language and experience. To achieve this, it will be necessary to look for successful literacy learning not in isolated bits of knowledge, but in students' growing ability to use language and literacy in more and broader activities. It will also be necessary to judge progress in learning by students' ability to successfully complete those activities. When we do this, the nature of instructional activities will change dramatically -- from pretend to real tasks, from parts to wholes, from practice to doing, and from recitation to thinking.

Conclusion

I have covered a good deal of ground in this presentation of a sociocognitive approach to literacy learning. This was necessary because the view itself is broad-based and simultaneously embraces issues of both society and schooling. It takes a new perspective on literacy, viewing it as a culturally-based <u>way of thinking</u> rather than as a simple act of reading and writing. It also maintains that literacy learning is a sociocognitive activity; both social and cognitive factors play a role in the processes individuals go through in becoming literate. <u>Who the people</u> are and <u>how they live</u> makes all the difference in how they will learn as well as how they will use literacy. Yet through engagement in literate thinking, and within the constraints of the culture, the uses of literacy will change, as will the culture itself.

Control of the Interaction

1. non-shared conception of goal
2. teacher regulated
3. shared regulation
4. learner regulated

Pedagogical Function

1. motivation
2. reassurance
3. help
4. extension

Participants' Contributions

1. observing/demonstrating
2. assimilating/direct instruction
3. problem solving/problem setting
4. mutual reflection and task definition

Table 1. Dimensions of Instructional Interaction

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